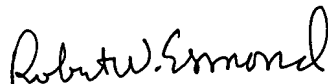


***Remarks***

By the foregoing amendments, claims 34, 37, and 126 have been cancelled. Claims 26, 28, 33, 117-121, 124, 125, and 127-135 have been amended. New claims 136-148 are sought to be entered. Support for the foregoing amendments to the claims may be found throughout the specification. Specifically, support for the new claims may be found, *inter alia*, at pages 28-30 and throughout the Examples, especially at pages 102 and 106. Accordingly, the present amendments do not add new matter, and their entry is respectfully requested. Upon entry of the foregoing amendments, claims 26, 28, 33, 39, 40, 117-125, and 127-148 are pending in the application, with claim 26 being the independent claim.

It is believed that the present application is in condition for immediate examination. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,  
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**Version with markings to show changes made**

***In the Claims:***

Claims 34, 37 and 126 have been cancelled.

New claims 136-148 are sought to be entered.

The following claims have been amended:

26. (Three times amended) A method of producing an ASLV reverse transcriptase having a specific activity of at least [from] about 30,000 units per milligram [to about 140,000 units per milligram] and having RNase H activity, said method comprising

(a) obtaining a host cell comprising one or more nucleic acid sequences encoding [one or more subunits of] at least one ASLV reverse transcriptase; and

(b) culturing said host cell under conditions sufficient to produce said ASLV reverse transcriptase [subunits,]; and [thereby producing an ASLV reverse transcriptase having a specific activity of from about 30,000 units per milligram to about 140,000 units per milligram]

(c) thereby obtaining an ASLV reverse transcriptase having a specific activity of at least about 30,000 units per milligram and having RNase H activity.

28. (Once amended) The method of claim 26, wherein said ASLV reverse transcriptase [subunits] comprises one or more subunits selected from the group consisting of one or more  $\alpha$  subunits, one or more  $\beta$  subunits, and one or more  $\beta p4$  subunits, of one or more ASLV reverse transcriptases, and [derivatives, variants,] fragments or mutants thereof having reverse transcriptase activity.

33. (Once amended) The method of claim 26, wherein [said subunits are co-expressed to form an ASLV reverse transcriptase and wherein said ASLV reverse transcriptase is isolated from said host cell] subunits of said ASLV reverse transcriptase are expressed in said host cell to form said ASLV reverse transcriptase.

117. (Once amended) The method of claim [26] 28, wherein said [one or more nucleic acid sequences encoding one or more subunits of ASLV reverse transcriptase] one or more subunits encoded by nucleic acid sequences of one or more ASLV reverse transcriptases are contained in one or more vectors.

118. (Once amended) The method of claim [26] 28, wherein said subunits are one or more  $\alpha$  subunits.

119. (Once amended) The method of claim [26] 28, wherein said subunits are one or more  $\beta$  subunits.

120. (Once amended) The method of claim [26] 28, wherein said subunits are one or more  $\beta$ p4 subunits.

121. (Once amended) The method of claim [26] 28, wherein said subunits are [one] an  $\alpha$  subunit and [one] a  $\beta$  subunit of one or more ASLV reverse transcriptases.

124. (Once amended) The method of claim [26] 28, wherein said subunits are encoded by one or more nucleotide sequences contained on the same vector.

125. (Once amended) The method of claim [26] 28, wherein said subunits are encoded by one or more nucleotide sequences contained on different vectors.

127. (Twice amended) The method of claim 26, wherein said ASLV reverse transcriptase has a specific activity [selected from the group of specific activities consisting

- of:
- (a)] from about 30,000 units per milligram to about 150,000 [140,000] units per milligram[,
  - (b) about 35,000 units per milligram to about 140,000 units per milligram,
  - (c) about 40,000 units per milligram to about 140,000 units per milligram,
  - (d) about 45,000 units per milligram to about 140,000 units per milligram,
  - (e) about 50,000 units per milligram to about 140,000 units per milligram,
  - (f) about 55,000 units per milligram to about 140,000 units per milligram,
  - (g) about 60,000 units per milligram to about 140,000 units per milligram,
  - (h) about 65,000 units per milligram to about 140,000 units per milligram,
- and
- (g) about 70,000 units per milligram to about 140,000 units per milligram].

128. (Once amended) The method of claim 26, wherein said ASLV reverse transcriptase has a specific activity [of] from about 35,000 units per milligram to about

150,000 [140,000] units per milligram.

129. (Once amended) The method of claim 26, wherein said ASLV reverse transcriptase has a specific activity [of] from about 40,000 units per milligram to about 150,000 [140,000] units per milligram.

130. (Once amended) The method of claim 26, wherein said ASLV reverse transcriptase has a specific activity [of] from about 45,000 units per milligram to about 150,000 [140,000] units per milligram.

131. (Once amended) The method of claim 26, wherein said ASLV reverse transcriptase has a specific activity [of] from about 50,000 units per milligram to about 150,000 [140,000] units per milligram.

132. (Once amended) The method of claim 26, wherein said ASLV reverse transcriptase has a specific activity [of] from about 55,000 units per milligram to about 150,000 [140,000] units per milligram.

133. (Once amended) The method of claim 26, wherein said ASLV reverse transcriptase has a specific activity [of] from about 60,000 units per milligram to about 150,000 [140,000] units per milligram.

134. (Once amended) The method of claim 26, wherein said ASLV reverse transcriptase has a specific activity [of] from about 65,000 units per milligram to about 150,000 [140,000] units per milligram.

135. (Once amended) The method of claim 26, wherein said ASLV reverse transcriptase has a specific activity [of] from about 70,000 units per milligram to about 150,000 [140,000] units per milligram.